



Shell Oil Products

Submitted via e-mail to: harborcomments@epa.gov

Attn: Harbor Comments

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Re: Portland Harbor Proposed Plan

Following please find questions and comments on EPA's Proposed Plan for the Portland Harbor Superfund site.

1. There appears to be an error on Table 13 of the Proposed Plan where it lists a principal threat waste (PTW) remedial action level (RAL) for Total polycyclic aromatic hydrocarbons (PAHs) of 870,000 micrograms per kilogram (ug/kg). Highly Toxic PTW is defined as "*concentrations that exceed a 1×10^{-3} risk based on consumption of fish ... This includes sediment contaminated with PCBs, cPAHs, DDx, and/or dioxins/furans*" (Proposed Plan, page 14). PTW applies to carcinogenic PAHs (cPAHs) not total PAHs. The "Highly Toxic PTW Threshold" for cPAHs is identified as 106,000 ug/kg benzo(a)pyrene equivalents (BaP eq) on Table 6 of the Proposed Plan, consistent with Table 3.2-1 and Figure 3.2-3 of the 2016 FS. The cPAH PTW criteria should be listed.

If this is not an error, please provide justification for the assignment of a PTW value of 870,000 ug/kg for Total PAHs.

2. Please provide clarification on how the sediment decision unit (SDU) boundaries/location, type/basis, and COCs were determined. These are listed on Table 16 of the Proposed Plan and Table 4.1-1 of the 2016 FS and (reproduced below).

Section 3.4.1.1 of the 2016 FS (Page 3-7) states "*Focused COCs are those that the distribution encompasses the majority of the spatial extent of contaminants posing the majority of the risks as identified in the baseline risk assessments. The focused COCs are only used for the development of SMAs.*" This does not explain how the focused COCs were further narrowed for the individual SDUs.

Table 4.1-1

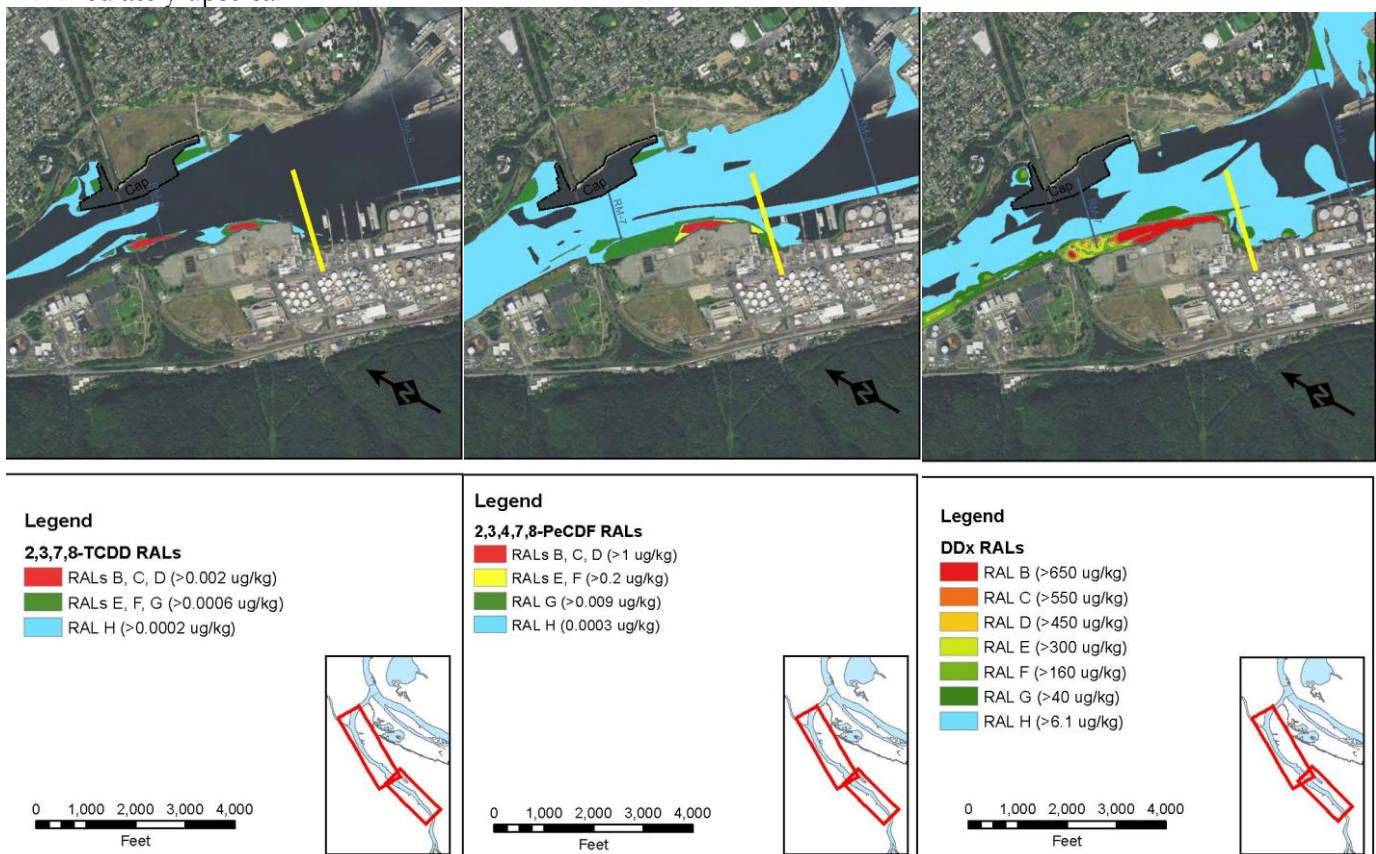
Sediment Decision Unit (SDU) Summary Information

Portland Harbor Superfund Site

Portland, OR

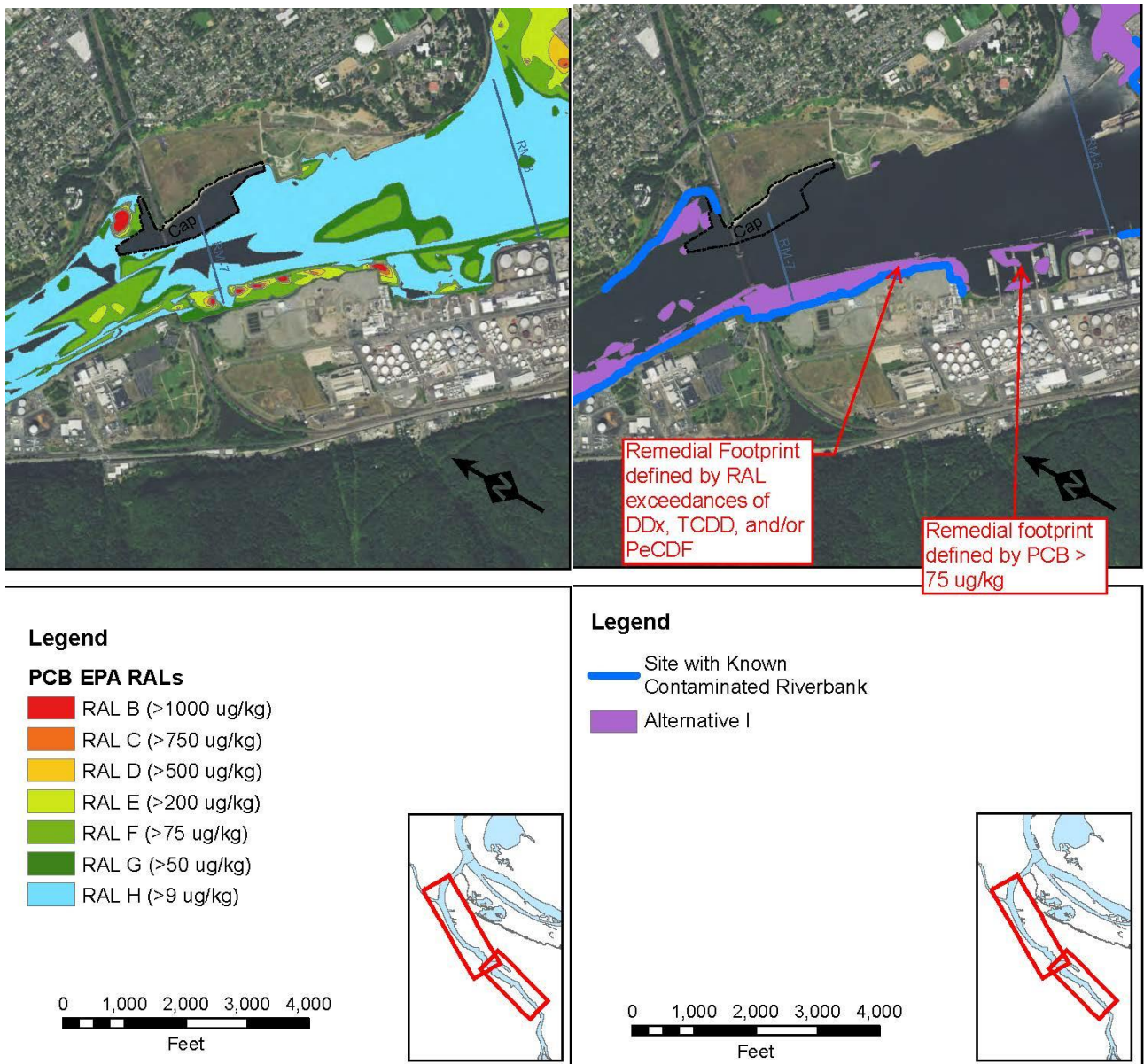
SDU ID	Location	Description	Length (mile)	Acres	SDU Type/Basis	COCs
RM2E	RM 1.6 - 2.8 East	Evrax Oregon Steel Mill	1.3	102.8	Focused COC-based	PCBs
RM3.5E	RM 3.1-4.1 East	Schnitzer	1	51.3	Focused COC-based	PCBs
RM4.5E	RM 4.2 - 5.0 East	Terminal 4	0.9	43.3	Focused COC-based	PAHs/PCBs
RM5.5E	RM 5.0 - 6.0 East	Mar Com	0.9	30	Multiple COC-based	PAHs/PCBs
RM6.5E	RM 6.0 - 7.0 East	Willamette Cove	1.1	89.2	Focused COC-based	PCBs/PeCDD
SwanIs	RM 8.1 - 8.9	Swan Island Lagoon	1.1	117	Focused COC-based	PCBs
RM11E	RM 10.6 - 11.6 East	River Mile 11 East	1.1	28.8	Focused COC-based	PCBs/PeCDD
RM3.9W	Benthic Risk Area	Kinder Morgan	1.1	49.3	Multiple COC-based	PAHs/DDx
RM5W	Benthic Risk Area	Nustar	1.1	24.6	Multiple COC-based	PAHs/DDx
RM6W	RM 5.6 - 6.5 West	Gasco	1	38.1	Focused COC-based	PAHs
RM7W	RM 6.6 - 7.8 West	Arkema	1.4	68.3	Focused COC-based	DDx/PeCDF/TCDD
RM9W	RM 8.3 - 9.7 West	Shaver to Fireboat Cove	1.5	67.9	Focused COC-based	PCBs/PeCDD/TCDD
RM6Nav	RM 5.1 - 6.5 Nav	Navigation Channel	1.7	147	Focused COC-based	PAHs

3. Multiple apparent errors also appear in the table reproduced above, which should be corrected. If they are not errors, please provide justification for each of the following:
 - a. Why are several SDUs listed as “Focused COC-based” but have multiple COCs (RM4.5E, RM6.5E, RM11E, RM7W and RM9W)?
 - b. Why is DDx included in the COC list for RM3.9W and RM5W, when DDx is omitted from RM6W? The DDx source is upstream at RM7W and decreases downstream (see panel 3 of Figure D9-3c). It appears that the only focused COC for SDUs RM3.9W and RM5W should be PAHs.
 - c. Why don’t the lengths of the SDUs match the river miles (RMs) in the “Location” column of the table? For example, SDUs RM4.5E and RM5.5E are both listed as being 0.9 mile in the “Length” column, but the “Location” column has one SDU listed as 0.8 mile long (RM 4.2 to 5.0) and the other as 1.0 mile long (RM 5.0 to 6.0).
 - d. Why do SDUs RM3.9W and RM5W have “Benthic Risk Area” instead of river miles in the “Location” column? The EPA selected 10 times the Preliminary Remediation Goals (PRGs) as an indicator of benthic risk, but essentially no area exceeds this indicator in SDUs RM5W or RM3.9W (Figure 4.2-29 of the 2016 FS). Greater benthic risk is found in other SDUs that are not listed as “Benthic Risk Areas”.
4. Willbridge Cove (RM7.6 to RM7.8 on the West side of the Willamette River) appears to have been inadvertently placed into the Arkema SDU “RM7W”. The Focused COCs from SDU RM7W are identified as DDx, PeCDF, and TCDD (Table 16 of the Proposed Plan and Table 4.1-1 of the 2016 FS); however, none of the COCs exceed Alternative E RALs upstream of the GS Roofing property (see excerpts of 2016 FS Figures 3.4-9, 3.4-11, and 3.4-12, below). Therefore, SDU RM7W should not extend upstream of the impacts from Arkema, and should end at the yellow line added to the Figures, at approximately RM 7.6. The Willbridge Cove would not be in a SDU but would become part of the “No SDU” designation assigned to the west bank of the river immediately upstream.



5. If the inclusion of Willbridge Cove in the Arkema SDU was purposeful, then it appears that the assignment of a PCB RAL of 75 ug/kg to Willbridge Cove was an unintended consequence of assigning Alternative F RALs for SDU RM7W. PCBs were not identified as a focused COC for SDU RM7W. However, as can be seen by comparing Figure 3.4-7 and 3.4-14h from the 2016 FS (excerpts reproduced below), the remedial footprint beneath the docks in Willbridge Cove is only due to PCB concentrations exceeding 75 ug/kg – not due to RAL exceedances of the RM7W focused COCs.

Since the Proposed Plan assigns the PTW RAL of 200 ug/kg for PCBs will be assigned to all portions of the river not included in individual SMAs (Proposed Plan, Figure 9), the remedy will be adequately protective in Willamette Cove, even if Willamette Cove is not included in an individual SMA. As discussed above, no other focused COCs exceed Alternative E RALs (see 2016 FS Figures 3.4-7 through 3.4-12).



The assignment of a PCB RAL of 75 ug/kg to Willbridge Cove is inconsistent with the assignment of a PCB RAL of 200 ug/kg to the majority of the River, including immediately upstream of Willbridge Cove. This is in conflict with the NCP and CERCLA requirement that the selected remedy demonstrate “long-term effectiveness and permanence.” Downstream sediment transport will bring sediments with total PCB concentrations as high as 200 ug/kg to Willbridge Cove, recontaminating any areas previously remediated to 75 ug/kg PCBs.

If this was not an error, please provide justification for the assignment of a total PCB RAL any lower than the upstream RAL of 200 ug/kg, and an explanation of how this is consistent with the NCP requirement for long-term effectiveness and permanence.

Please feel free to contact the undersigned at (707) 864-1617 or Carol.Campagna@Shell.com for any matter pertaining to these comments.

Sincerely,

Carol Campagna
Principal Program Manager